Exhibit No:

Issue: Winter Storm Uri,

Operational Flow

Order

Witness: Justin Powers

Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Spire Missouri Inc.
Case Nos.: GC-2021-0315,

GC-2021-0316 and

GC-2021-0353

Date Testimony Prepared: January 27, 2022

SPIRE MISSOURI INC.

CASE NOS. GC-2021-0315, GC-2021-0316 AND GC-2021-0353

REBUTTAL TESTIMONY

OF

JUSTIN POWERS

JANUARY 27, 2022

TABLE OF CONTENTS

REBUTTAL TESTIMONY OF JUSTIN POWERS	1
I. PURPOSE OF TESTIMONY	2
II. WINTER STORM URI	2
III. OPERATIONAL FLOW ORDER (OFO)	4
IV. CONCLUSION	8
SCHEDULE:	
Schedule JP-R1: Weather Forecast	

1 <u>REBUTTAL TESTIMONY OF JUSTIN POWERS</u>

- 2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 3 A. My name is Justin Powers, and my business address is 700 Market Street, St. Louis, Missouri,
- 4 63101.
- 5 O. WHAT IS YOUR PRESENT POSITION?
- 6 A. I am employed by Spire Missouri Inc. ("Spire Missouri" or "Company") as the Director of
- 7 Gas Supply.
- 8 Q. PLEASE STATE HOW LONG YOU HAVE HELD YOUR POSITION AND BRIEFLY
- 9 **DESCRIBE YOUR RESPONSIBILITIES.**
- 10 A I have been in my present role since 2014. In my position I am responsible for the gas supply
- strategy to ensure safe and reliable service to all customers at all times at each of our operating
- units, Spire Missouri East, Spire Missouri West, Spire Alabama, Spire Gulf and Spire
- 13 Mississippi.
- 14 Q. WHAT WAS YOUR PROFESSIONAL EXPERIENCE PRIOR TO ASSUMING
- 15 YOUR CURRENT POSITION?
- 16 A. I have worked for Spire or its predecessor companies since 2006. Prior to my current role,
- I worked as a trader and scheduler for Laclede Energy Resources, which subsequently
- changed its name and became Spire Marketing. Prior to that, I worked briefly in the
- 19 Financial Reporting group at Laclede Gas, which is now known as Spire Missouri.
- 20 O. WHAT IS YOUR EDUCATIONAL BACKGROUND?
- 21 A. I have a Bachelor of Science degree with a double major in Accountancy and
- Economics/Finance from Mckendree University of Lebanon, Illinois.
- 23 Q. HAVE YOU PREVIOUSLY FILED TESTIMONY BEFORE THIS COMMISSION?

1	A.	No.
2		I. PURPOSE OF TESTIMONY
3	Q.	WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?
4	A.	The purpose of my testimony is to discuss the processes Spire utilized to monitor and react to
5		Winter Storm Uri to ensure its customers continued to receive service during Winter Storm
6		Uri, and to provide a timeline leading up to the issuance of a standard operational flow order
7		("OFO")) in response to the direct testimony filed in these matters.
8		II. WINTER STORM URI
9	Q.	WHAT TYPE OF STORAGE POSITION DID SPIRE HAVE ON THE SOUTHERN
10		STAR SYSTEM IN FEBRUARY 2021?
11	A.	Spire Missouri entered February with a very healthy storage position of approximately 9 Bcf.
12	Q.	WHEN DID YOU BECOME AWARE OF WINTER STORM URI AND ITS
13		POSSIBLE EFFECTS IT MAY HAVE ON SUPPLY TO SPIRE'S CUSTOMERS IN
14		MISSOURI?
15	A.	As part of my responsibilities, my team and I are constantly monitoring weather forecasts.
16		Early in February, the forecasts started to look extremely ominous across most of the country.
17		With the forecasted low temperatures, Spire was well aware that the demand for natural gas
18		would increase as a result of increased heating demand everywhere. The forecast also showed
19		that this was going to be an extended cold period. An extended period of low temperatures is
20		much more difficult to manage compared to a single day or two. This is because once the
21		integrity of your distribution system begins to be strained, you don't have the ability to catch
22		up pressure wise with the heavy pull on the system. Please see Schedule JP-R1.
23	Q.	WHAT WERE THE PREDICTIONS FOR FEBRUARY 2021?

A. The forecast for Missouri was dire, as demonstrated by Schedule JP-R1. Similarly, the forecasts indicated that Texas and Oklahoma would experience near record low temperatures and an extended period of extreme weather. This had me concerned about potential upstream supply issues due to the quantity of natural gas produced in Texas and Oklahoma, which ultimately makes its way into the Southern Star system. Extended periods of cold are also much more disruptive on the upstream side due to natural gas wellhead freeze-offs. Natural gas wellhead freeze-offs happen when outside temperatures drop below freezing in producing fields. The big problem with an extended period of cold is that once wellheads begin to freeze-off they will not be able to produce again until outside temperatures allow them to.

10 Q. WHAT ACTIONS DID YOU TAKE AFTER REVIEWING THE WEATHER 11 FORECASTS?

12 On February 9, 2021, prior to the storm and after reviewing our weather forecasts, I directed Α. 13 Spire Missouri to put in a service request with Southern Star Central Pipeline (Southern Star) 14 to shift 25,000 Dth/day of firm transportation rights away from the Production Market 15 Interface on Southern Star, which relies on deliveries mostly from Texas and Oklahoma to 16 Rex St. Joe, which relies on deliveries from the Rockies. Also, on February 9, I directed Spire 17 Missouri to secure 35,000 Dth/day of supply with Mieco from the Rockies for Gas Day 11-18 19 in anticipation of upstream supply issues stemming from the near record low temperatures 19 forecast for the Texas/Oklahoma production regions.

Q. WHY DID YOU TAKE THESE ACTIONS?

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A. We were concerned about potential production problems such as wellhead freeze offs in Texas and Oklahoma.

1	Q.	ARE THESE ACTIONS LIMITED TO UTILITIES OR ARE OTHER ENTITIES
2.		ABLE TO MAKE SIMILAR TRANSACTIONS IN REGARD TO CAPACITY?

- 3 **A.** The actions Spire Missouri took are not limited to utilities. Any entity involved in the natural gas market that held firm transportation could make similar transactions, including marketers.
- 5 Q. AS THE STORM APPROACHED, WHAT ACTIONS DID YOU TAKE?
- As the storm approached, my team and I were continually watching the forecasts and monitoring the situation. We barely slept for about four days because we were constantly monitoring our natural gas supplies, receipts, and system pressures both upstream and on our distribution system throughout each nomination cycle. During this time, I was in touch with other industry participants, including representatives from Southern Star. I was also in regular communication around the clock with my team and other individuals at Spire Missouri.

III. OPERATIONAL FLOW ORDER (OFO)

13 Q. HAVE YOU RECOMMENDED THAT SPIRE ISSUE AN OFO IN THE PAST?

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- 14 **A.** No. I have been the Director of Gas Supply for Spire Missouri since 2014 and the first time I recommended an OFO was in February 2021.
- 16 Q. WHAT WAS DIFFERENT ABOUT THIS SITUATION THAT MADE YOU DECIDE
 17 THAT RECOMMENDING AN OFO WAS THE BEST DECISION?
- As I mentioned above, the forecasts across much of the county looked extremely dire. This
 was coupled with the fact that some of the largest producing areas in the country were
 forecasted to see near record low temperatures. The standard OFO is the only preemptive
 safeguard Spire Missouri has as point operator to ensure that Spire Missouri has sufficient
 capacity to continue to provide service to its customers. The Southern Star tariff confirms that
 this is an appropriate purpose for an OFO, stating (section 10.1, General Terms and
 Conditions, Revised Sheet No. 250):

A Standard Operational Flow Order shall consist of pre-emptive or preventive actions or
measures that neutralize or reduce threats to, or otherwise preserve, as reasonably deemed
necessary by Southern Star, the integrity of all or a portion of its system. An Emergency
Response Operational Flow Order shall consist of actions or measures required by Southern
Star that neutralize or reduce threats to, or otherwise preserve, the integrity of all or a portion
of its system which requires immediate response as reasonably deemed necessary by Southern
Star.

9 COVER ALL MARKETER UNDER-DELIVERIES. CAN YOU EXPLAIN THE 10 WITHDRAWAL RESTRICTIONS ON SOUTHERN STAR?

A. I would like to quote the storage withdrawal restrictions directly from the Southern Star tariff
(TSS Rate Schedule, Section 2, Tariff Sheet 103):
 Any Shipper under rate schedule TSS-M shall specify a MDTQ by area in the executed Trans-

Storage Service Agreement. When Shipper requires deliveries at its MDTQ, at least one-third of but no more than one-half of the total deliveries of gas shall be from flowing supply sources and at least one-half of but no more than two-thirds of the total deliveries of gas shall be from storage. Shippers under Rate Schedule TSS-M shall have transportation quantity rights in the market area equal to the MDTQ of the service agreement, firm storage withdrawal rights equal to at least one-half of but no more than two-thirds of the MDTQ of the service agreement, and transportation quantity rights in the production area (if applicable) equal to no more than one-half of the MDTQ of the service agreement (plus all fuel and loss in the market area). Shippers under Rate Schedule TSS-P shall have transportation quantity rights in the production area

1 equal to the MDTQ under the service agreement and firm storage withdrawal rights equal to 2 at least one-half of but no more than two-thirds of the MDTQ under the service agreement.

3 Q. WHAT DOES THIS MEAN IN PRACTICE?

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4 This means that the limiting factor for how much natural gas can be received into the Spire A. 5 MO West System from its Southern Star storage contract is the actual volume of confirmed, 6 flowing natural gas supply that Spire Missouri sources into Southern Star's market area to 7 deliver to its city gate. The limiting factor was never how much inventory Spire Missouri had 8 in its storage account on Southern Star. This distinction is crucial to understanding Spire 9 Missouri's storage limitations when managing natural gas supply and imbalances with Southern Star. 10

WHAT PERCENTAGE OF FLOWING GAS TO TOTAL DELIVERIES DID SPIRE 11 Q. 12 HAVE DURING FEBRUARY 12TH THROUGH FEBRUARY 18TH?

Spire Missouri was at or near our limits on what we could pull from our no-notice storage A. contract with Southern Star. The chart below was provided to me by Southern Star, and 15 illustrates Spire Missouri's utilization of SSC storage during the OFO period.

9					
Date	PMI - Prod	Flowing Gas (FG) - PMI/MKt Net Receipts	Storage WD	Total Market Deliveries (AMD)	Percentage of Flowing Gas
2/12/2021	105,427	186,705	332,389	538,950	34.64%
2/13/2021	96,768	177,002	322,955	533,216	33.20%
2/14/2021	74,967	162,353	399,557	622,980	26.06%
2/15/2021	88,432	199,194	408,767	627,961	31.72%
2/16/2021	98,687	197,585	322,852	555,375	35.58%
2/17/2021	97,369	170,477	272,443	476,179	35.80%
2/18/2021	103,504	180,556	199,278	413,093	43.71%

17 Q. WHAT DOES THIS CHART TELL US ABOUT SPIRE MISSOURI'S USE OF 18 SOUTHERN STAR STORAGE DURING WINTER STORM URI?

Based on the Two Thirds Rule, we would be maximizing our authorized use of Southern Star Α. storage when flowing supply accounts for only 33% of total market area deliveries. As you can see, we were very near 33% on almost all days of the OFO period. In fact, we exceeded

1	our maximum	use of S	outhern	Star	storage	gas	on	two	days	during	the	heart	of	the	Winter

2 Storm Uri event.

3 Q. DID SOUTHERN STAR ISSUE ANY OFOS AS A RESULT OF WINTER STORM

4 URI?

- Yes. Southern Star issued its own pipeline OFO on February 9, 2021. As point operator on
 Southern Star's system, Spire Missouri was ultimately responsible for any Southern Star OFO
- 7 penalties at the Kansas City receipt points, regardless of whether those penalties were the
- 8 result of usage by Spire Missouri or other shippers.

9 Q. DID ANY OTHER COMPANIES OR PIPELINES ISSUE OFOS AS A RESULT OF

10 **WINTER STORM URI?**

- Yes. Natural Gas Pipeline (NGPL) issued an OFO on February 10, 2021 in its Market Delivery
 Zone effective 9:00 am Central Clock Time, Friday, February 12, 2021, and continuing until
 further notice. Tallgrass Interstate Gas Transmission (TIGT) issued an OFO on February 12,
- 14 2021 effective Saturday, February 13, 2021, and continuing until further notice. Enable Gas
- 15 Transmission ("EGT") issued an OFO on February 10, 2021, effective immediately and
- 16 continuing until further notice. The majority of surrounding pipelines that serve Spire
- Missouri issued preemptive OFOs to maintain system deliverability and operational integrity,
- and did so until further notice.

19 Q. DID ANY OTHER UTILITIES ISSUE OFOS AS A RESULT OF WINTER STORM

20 **URI?**

- 21 A. Yes. I understand that other natural gas utilities in Missouri and Kansas also issued OFOs
- during the Winter Storm Uri event. This includes Kansas Gas Service, which serves areas of
- 23 Kansas adjoining our Missouri West service territory, as well as Empire District and Liberty

- 1 Utilities in Missouri. See p. 74, Staff Report in File No. AO-2021-0264., which is attached to
- 2 Spire witness Scott Weitzel's Rebuttal Testimony, Schedule SAW-3.
- 3 <u>IV. CONCLUSION</u>
- 4 Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?
- 5 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

Constellation NewEnergy-Gas Division,)
LLC, Complainant v. Spire Missouri, Inc.)
d/b/a Spire, Respondent)
Symmetry Energy Solutions, LLC, Complainant v Spire Missouri, Inc. d/b/a	File Nos. GC-2021-0315 GC-2021-0316 GC-2021-0353
Spire, Respondent	
Clearwater Enterprises, L.L.C., Complaint v Spire Missouri, Inc. d/b/a Spire and its Operating Unit Spire Missouri West,)))
Respondent	TIDAVIT
STATE OF MISSOURI)	SS.
CITY OF ST. LOUIS	

Justin Powers, of lawful age, being first duly sworn, deposes and states:

- My name is Justin Powers, I am the Director of Gas Supply at Spire Missouri Inc. My business address is 700 Market St., St. Louis, Missouri, 63101.
- Attached hereto and made a part hereof for all purposes is my rebuttal testimony on behalf of Spire Missouri Inc.
- Under penalty of perjury, I declare that the foregoing is true and correct to the best of my knowledge and belief.

Justin Powers

Date

MURRAY & TRETTEL, INC/WEATHER COMMAND

Certified Consulting Meteorologists

Phone:847-963-9000 ext 2 FAX: 314-531-4013

FAX:847-963-0245

FORECAST CONTROL POINT: STL-Lambert Intn'l Airport

Time: 2:30 AM REV: 0 FCSTR: MM

SPIRE

Phone:

DAY: WEDNESDAY

10-Feb-21

DAY 1: WEDNESDAY-FEBRUARY 10, 2021 15.79 PROJ. GAS DAY AVG: THIS MORN'S LOW: 18.6 MIN: MAX: 14 24 HR AVG 17 21 AVERAGE WIND SKY TIME TEMPERATURE **DIRECTION SPEED** CONDITION PRED ACTUAL ACTUAL **PERIOD PRED ACTUAL** PRED ACTUAL PRED 3AM to 7AM 14.3 NE 7.8 0.0 7AM to 9AM 15.5 ΝE 9.5 21% 9AM to 1PM 18.5 ΝE 11.5 21% 1PM to 5PM 21% 20.5 NE 13.8 5PM to 9PM NNE 19.3 11.8 3.0 9PM to 3AM NNE 18.0 8.8 3.0 3AM to 7AM 17.0 **NNE** 7.3 3.0 7AM to 9AM 18.5 **NNE** 10.0 21%

GENERAL SUMMARY-DAY 1

SNOW SHOWERS LIKELY EARLY ON. SOME RAIN/MIXED PRECIPITATION POSSIBLE. PRECIPITATION THINNING OUT AS THE DAY PROGRESSES. OTHERWISE MAINLY CLOUDY AND COLD.

DAY 2: THURSDAY-FEBRUARY 11, 2021										
24 HR AVC	16.5	MIN:	12	MAX:	21					
AVER	AGE		WII	ND		SKY				
TEMPER	ATURE	DIREC	TION	SPE	ED	COND	ITION			
PRED		PRED		PRED		PRED				
20.3		NNE		15.3		21%				
20.3		N		16.5		21%				
17.5		N		12.8		3.0				
14.5		N		10.3		3.0				
12.3		N		10.0		3.0				
14.0		N		11.5		21%				
	AVER. TEMPER PRED 20.3 20.3 17.5 14.5 12.3	24 HR AV(16.5 AVERAGE TEMPERATURE PRED 20.3 20.3 17.5 14.5 12.3	AVERAGE MIN: TEMPERATURE DIREC PRED PRED 20.3 NNE 20.3 N 17.5 N 14.5 N 12.3 N	AVERAGE WIN: 12 AVERAGE WIN TEMPERATURE DIRECTION PRED PRED 20.3 NNE 20.3 N 17.5 N 14.5 N 12.3 N	AVERAGE TEMPERATURE DIRECTION SPE PRED PRED PRED 20.3 NNE 15.3 20.3 N 16.5 17.5 N 12.8 14.5 N 10.3 12.3 N 10.0	24 HR AV(16.5 MIN: 12 MAX: 21 AVERAGE TEMPERATURE DIRECTION SPEED PRED PRED PRED 20.3 NNE 20.3 NNE 15.3 17.5 N 16.5 14.5 N 10.3 10.3 N 10.0 10.0	24 HR AV(16.5 MIN: 12 MAX: 21 AVERAGE TEMPERATURE DIRECTION SPEED COND PRED PRED PRED PRED 20.3 NNE 15.3 21% 20.3 N 16.5 21% 17.5 N 12.8 3.0 14.5 N 10.3 3.0 12.3 N 10.0 3.0			

GENERAL SUMMARY-DAY 2

SCATTERED SNOW SHOWERS THROUGH THURSDAY EVENING. LINGERING FLURRIES POSSIBLE OVERNIGHT INTO FRIDAY. OTHERWISE MOSTLY CLOUDY AND COLD.

EXTENDED OUTLOOK									
	L	.OW	AM LOW	HIGH	AVG	WIND			
DAY 3: F	RIDAY	12	12	20	15.8	13			
DAY 4: SA	ΓURDAY	3	12	20	11.0	12			
DAY 5: SI	JNDAY	3	3	13	7.7	13			
DAY 6: M	ONDAY	9	3	14	11.4	11			
	CHIEDAL OLIMANA	ADV D	A \ / O						

GENERAL SUMMARY-DAY 3

PARTLY SUNNY AND CONTINUED COLD.

MURRAY & TRETTEL, INC/WEATHER COMMAND SPIRE Phone:

Certified Consulting Meteorologists

Phone:847-963-9000 ext 2 FAX: 314-531-4013

FAX:847-963-0245

DAY: WEDNESDAY

Date: 10-Feb-21 Time: 2:30 AM REV: 0 FCSTR: MM

EODECASI	CONTROL			2.30_AIVI	Airport		FUSTA. IVIIVI	۸۱/۵
FURECAS			u-nansa		Airport	111011	04110 41/0	AVG
	DATE	LOW		AM LOW		HIGH	24HR AVG	WIND
DY 1 WED	10-Feb-21	9		8		18	13.5	12
DY 2 THU	11-Feb-21	2		0		17	9.5	12
DY 3 FRI	12-Feb-21	-1		2		10	4.5	13
DY 4 SAT	13-Feb-21	-6		-1		10	2.0	12
DY 5 SUN	14-Feb-21	-3		-6		6	1.5	9
							1.0	
DY 6 MON	15-Feb-21	-1		-3		10	4.5	11
	CONTROL		T I_St Ioo		uri	10	4.0	AVG
FUNECASI	DATE	LOW	13-31 308	AM LOW	uri	HIGH	24HR AVG	WIND
DV 4 WED								
DY 1 WED	10-Feb-21	5		5		15	10.0	12
DY 2 THU	11-Feb-21	-2		5		14	6.0	12
DY 3 FRI	12-Feb-21	-4		-2		8	2.0	13
DY 4 SAT	13-Feb-21	-9		-4		7	-1.0	11
DY 5 SUN	14-Feb-21	-7		-9		3	-2.0	9
DY 6 MON	15-Feb-21	-3		-7		7	2.0	11
	CONTROL		N-Jonlin			•	2.0	AVG
	DATE	LOW		AM LOW		HIGH	24HR AVG	WIND
DY 1 WED		18		18		25	21.5	13
DI I WED	10-1 60-21	10		10		23	21.0	13
DV 2 TUIT	11-Feb-21	11		18		23	17.0	12
טו ב ואט	11-Feb-21	11		10		۷۵	17.0	12
D)/ 0 EE:	40 = 1 61			4.4		40	40.0	40
DY 3 FRI	12-Feb-21	7		11		19	13.0	13
DY 4 SAT	13-Feb-21	-1		7		17	8.0	12
DY 5 SUN	14-Feb-21	4		-1		10	7.0	10
DY 6 MON	15-Feb-21	8		4		16	12.0	10

COMMENTS

KC DAY 1- CLOUDY AND COLD WITH CHANCES OF INTERMITTENT SNOW SHOWERS.

KC DAY 2- CLOUDY AND CONTINUED COLD WITH A CHANCE OF SNOW EARLY.

KC DAY 3- MOSTLY CLOUDY AND COLDER WITH A SLIGHT CHANCE OF SNOW LATE.